



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,809	07/28/2005	Mahmud Ahmad Siddiqi	59200 (71699)	7310
21874	7590	04/24/2007	EXAMINER	
EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205			HANNAHER, CONSTANTINE	
			ART UNIT	PAPER NUMBER
			2884	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/516,809	SIDDIQI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Constantine Hannaher	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 April 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-36 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 06 December 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Information Disclosure Statement**

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, “the list may not be incorporated into the specification but must be submitted in a separate paper.” Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### **Drawings**

2. The drawings are objected to because the view numbers are not preceded by the abbreviation “FIG.” as required by 37 CFR 1.84(u)(1). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. FIG. 2A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 1, 146a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because there is no FIG. 6A, 6B, 6C, 7A, 7B, 9A, or 9B as described in the specification at pages 6 and 7. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Specification**

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "Featured are" and "Also featured are" which are phrases which can be implied.

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

8. The disclosure is objected to because of the following informalities: page 2, line 6, a double period and lack of capitalization; page 10, line 11, "know" where --known-- would be expected; page 10, line 19, "s" where --is-- would be expected; page 13, line 5, "seand" where --se and-- would be

expected; page 14, line 6, sentence fragment; page 15, line 6, wrong verb tense; page 15, line 7, “r-positioning” where --re-positioning” would be expected; page 18, line 9, “adpatable” where --adaptable-- would be expected; page 18, line 16, reference to a “sequence listing”.

Appropriate correction is required.

9. The use of the trademark DELRIN has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

#### **Claim Objections**

10. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. There is no basis that the “providing” of claim 9 would be of anything other than a visible image.

11. Claim 21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. There is no basis that the “directly visualized” of claim 20 would be of anything other than in the visible light spectral range.

12. Claim 31/21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

claim(s) in independent form. Claim 21 in the chain of dependence already requires the intensification to light in the visible light range.

**Claim Rejections - 35 USC § 112**

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation “the microscopic imaging device” in line 3. There is insufficient antecedent basis for this limitation in the claim. In the claimed method, no such “device” is established.

**Claim Rejections - 35 USC § 102**

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

16. Claims 1-11, 14-23, 27, 28, 34-36, and 24-26 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Richardson (US006650357B1).

With respect to independent claim 1, Richardson discloses a method for microscopic visualization of a sample **80** corresponding to the illustrated apparatus (Fig. 1) which would comprise the steps of intensifying the light emanating from the sample (with electro-optical device **160**, column 17, lines 48-54) and directly observing a light image provided by the intensified light (column 18, lines 61-63).

With respect to dependent claim 2, the steps in the method of Richardson are performed in real time (column 7, lines 20-46) especially in view of the transfer to the observer (column 18, lines 61-63).

With respect to dependent claim 3, the method of Richardson would further comprise the step of controlling the power output of an illumination source **20** as recited (column 20, lines 34-36).

With respect to dependent claim 4, the desired intensity in the method of Richardson is as recited (column 17, lines 60-62).

With respect to dependent claim 5, the method of Richardson further comprises the step of converting the light that emanates from sample **80** as recited in view of the operation of device **160** (column 17, lines 49-53).

With respect to dependent claim 6, the step of *directly* observing in the method of Richardson would include the recited step. See the transfer by relay lens **180** to “the observer” (column 18, line 63).

With respect to dependent claims 7 and 8, the non-visible light converted in the method of Richardson is as recited (column 17, lines 52-53).

With respect to dependent claim 9, the method of Richardson further comprises the step of providing a visual converter **160** of the type recited (column 17, lines 48-54). See also the rejection of claim 6.

With respect to dependent claim 10, the visual converter **160** in the method of Richardson is located as recited (Fig. 1) in view of sample **80** and relay lens **180**.

With respect to dependent claim 11, as best understood, the visual converter **160** in the method of Richardson is located as recited (column 17, lines 30-33).

With respect to dependent claim 14, the visual converter **160** in the method of Richardson intensifies as recited (column 17, lines 30-33 and 49-53).

With respect to dependent claim 15, the method of Richardson would further comprise the step of controlling the power output of an illumination source **20** as recited (column 20, lines 34-36).

With respect to dependent claim 16, the desired intensity in the method of Richardson is as recited (column 17, lines 60-62).

With respect to dependent claim 17, the method of Richardson further comprises the step of converting the light that emanates from sample **80** as recited in view of the operation of device **160** (column 17, lines 49-53).

With respect to dependent claims 18 and 19, the non-visible light converted in the method of Richardson is as recited (column 17, lines 52-53).

With respect to independent claim 20, Richardson discloses a visual converter device (Fig. 1) comprising an electro-optical device **160** of the type recited (column 17, lines 48-54), and a housing **140** of the type recited in view of the operational coupling to a microscopic imaging device **110** and the minimization of external stray light because of the solid tube of **140** (column 15, lines 25-27).

With respect to dependent claim 21, the electro-optical device **160** in the device of Richardson intensifies as recited (column 17, lines 30-33 and 49-53).

With respect to dependent claim 22, the power output of an illumination source **20** in the device of Richardson is controlled as recited (column 20, lines 34-36).

With respect to dependent claim 23, the desired intensity in the device of Richardson is as recited (column 17, lines 60-62).

With respect to dependent claim 27, Richardson discloses a microscopic imaging system (Fig. 1) comprising a microscopic imaging device (column 15, lines 28-48) and a visual converter device **160** located in the optical light path between the sample **80** and an output end of the microscopic imaging device (*e.g.*, lens **180**) such that the light from the sample is received as recited (column 17, lines 30-33).

With respect to dependent claim 28, the visual converter device **160** in the system of Richardson is located as recited (column 17, lines 30-33).

With respect to dependent claim 34, the visual converter device **160** in the system of Richardson is configured and arranged as recited (column 17, lines 49-53).

With respect to dependent claims 35 and 36, the non-visible light converted in the system of Richardson is as recited (column 17, lines 52-53).

With respect to dependent claim 24, see the rejection of claim 21.

With respect to dependent claims 25 and 26, see the rejection of claims 35 and 36.

#### **Claim Rejections - 35 USC § 103**

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 12, 13, and 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson (US006650357B1).

With respect to dependent claim 12, the method of Richardson further comprises the step of providing a plurality of the visual converters, see Fig. 4, and allows function as a normal microscope (column 19, lines 50-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made, to the extent stereoscopic imaging was a function of normal microscopes, to provide the plurality of visual converters already disclosed by Richardson in different optical paths to allow stereoscopic imaging for the UVM operation.

With respect to dependent claim 13, Richardson discloses arranging the system to allow binocular vision of the intensified light (column 19, lines 42-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow “stereoscopic” imaging binocularly.

With respect to dependent claim 29, the microscopic imaging system of Richardson further provides a plurality of visual converters, that is, visual converter *devices*, see Fig. 4, and allows

function as a normal microscope (column 19, lines 50-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made, to the extent stereoscopic imaging was a function of normal microscopes, to provide the plurality of visual converters already disclosed by Richardson in different optical paths to allow stereoscopic imaging for the UVM operation..

With respect to dependent claim 30, Richardson discloses arranging the system to allow binocular vision of the intensified light (column 19, lines 42-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow “stereoscopic” imaging binocularly.

With respect to dependent claim 31, see the rejection of claim 21.

With respect to dependent claim 32, see the rejection of claim 22.

With respect to dependent claim 33, see the rejection of claim 23.

#### **Response to Submission(s)**

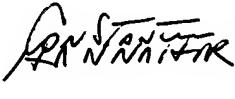
20. The amendment filed April 4, 2007 has been entered.
21. The request to change the title on the filing receipt was improper in view of the determination by the examiner in the International Searching Authority that the title of the international application did not comply with PCT Rule 4.3 and the establishment of a new title. Thus there was no error on the part of the Office in setting out the title in the filing receipt and any attempt by applicant to change the title must be by way of amendment. The Examiner notes that the claims are not limited to fluorescence in infrared bands and that the word “eye” never appears in the claims.
22. Applicant’s arguments filed April 4, 2007 have been fully considered but they are not persuasive. The reply does not comply with 37 CFR 1.111(b) as no “specific distinctions” are pointed out. The reply could have been held non-responsive on the basis alone.

**Conclusion**

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (571) 272-2437. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**Constantine Hannaher**  
Primary Examiner  
Art Unit 2884

ch